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Director, New Reactor Licensing Project Office  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT: Resolution of ESP-12 (NEPA Consideration of Severe Accident Issues)**

In public meetings on August 22 and December 5, 2002, we discussed generic early site permit topic ESP-12, which concerns the extent to which NEPA consideration of severe accident impacts and severe accident mitigation alternatives (SAMAs) is to be addressed in ESP applications under 10 CFR Part 52, Subpart A. NRC guidance for review of severe accident impacts and SAMAs is provided in NUREG-1555, Environmental Standard Review Plan (ESRP), Sections 7.2 and 7.3, respectively.

In accordance with the protocol established for documenting resolution of generic ESP issues, we request that, by reply to this letter, the NRC confirm the understandings and expectations identified below that resulted from these discussions. To provide for timely resolution of generic issues and continued progress toward submittal of ESP applications in mid-2003, we request that NRC respond by February 1, 2003.

**ESP-12 Understandings and Expectations**

1. The Part 52 ESP process reflects the longstanding Commission objective to decouple siting from design. Severe accident issues are design issues, and the NRC staff has concluded (in SECY-91-0041) that severe accident mitigation design alternatives (SAMDAs) "should be addressed as part of the design certification process." SAMDAs were indeed addressed in each of the three existing design certifications, and the final rule for each certified standard design states:

**"[T]he Commission considers the following matters resolved [for purposes of future proceedings] involving plants referencing this appendix ... [A]ll environmental issues concerning severe accident mitigation design alternatives associated with the information in the NRC's final environmental assessment for the [certified standard design] ... for plants referencing this appendix whose site parameters are within those specified in the Technical Support Document."**

- 2. Resolution for NRC certified designs of "all environmental issues concerning severe accident mitigation design alternatives" is understood to include the issues addressed in ESRP 7.2, "Severe Accidents," as well as ESRP 7.3, "SAMAs." This is because, by their nature, design certification SAMDA evaluations included consideration of environmental impacts of severe accidents to support cost/benefit determinations with respect to individual SAMDAs.**
- 3. ESP applications may reference approved SAMDA analyses for one or more certified standard designs. ESP applications that reference approved SAMDA analyses would also demonstrate either:**
  - a. The site parameters assumed in the approved SAMDA analyses are conservative with respect to the characteristics of the proposed site, or**
  - b. The characteristics of the proposed site will not result in severe accident impacts that are significantly greater than those evaluated in the referenced design certification(s).**

**In either case, the ESP applicant would request the NRC to determine, when granting the ESP, that severe accident issues are resolved for purposes of a COL proceeding based on a certified standard design and an ESP that references approved SAMDA analyses for that same certified design.**

- 4. Similarly, for a COL that references a certified standard design, severe accident issues shall be considered resolved provided the COL application demonstrates either 3(a) or 3(b), above.**
- 5. If a COL application does not reference a certified standard design, the evaluation and resolution of severe accident issues (both consequence evaluations and mitigation alternatives) under NEPA would be addressed as part of the COL proceeding.**

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6. Under Part 52, consideration of SAMDAs as part of design certification and reference to approved SAMDA analyses in later ESP or COL proceedings is consistent with the U.S. Court of Appeals decision in Limerick Ecology Action v. NRC, 869 F.2d 719 (3rd Cir. 1989) (concluding that the NRC must consider certain SAMAs in environmental impact reviews performed under Section 102(2)(c) of NEPA as part of operating license applications).

An updated listing of generic ESP issues is enclosed for information.

We look forward to your confirmation of the understandings and expectations described above related to ESP-12. If you have any questions concerning this request, please contact Russ Bell ([rjb@nei.org](mailto:rjb@nei.org) or 202-739-8087).

Sincerely,

***Original Signed By:***

Ron Simard

Enclosure

c: Ronaldo V. Jenkins, NRC/NRR  
Document Control Desk

Status of Generic ESP Interactions

ESP Topic Higher priority topics shaded	Initial Discussion	Resolution Pending	Discussions Ongoing	Next Discussion	NEI Letter	NRC Response	Potential Snr. Mgmt Issue	ESP Schedule Impact if not Resolved by	Remarks
1. ESP application form & content	8/22		x	1/29					NRC provided TOC comparison on Oct. 16
2. ESP inspection guidance	4/24		x	1/29					<ul style="list-style-type: none"> <li>IMC-2501 issued; reflects QA open issue (see ESP-3)</li> <li>ESP Review Std to be issued for use &amp; comment by year end</li> </ul>
2a. Pre-application interactions (voluntary nature, plans for local public mtgs & review fee structure)	4/24	x			11/26				
3. QA requirements for ESP information	5/28	x			12/20			2/1/03	
4. Nominal NRC review timeline	10/17		x	1/29					
5. Mechanism for documenting resolution of ESP issues	5/28				9/10	11/5			
6. Use of plant parameters envelope (PPE) approach	7/16	x			12/20			2/1/03	
7. Guidance for satisfying §52.17(a)(1) requirements	7/16	x			12/20			2/1/03	Related to ESP-6
8. Fuel cycle and transportation impacts (Tables S-3 & S-4)	9/25		x	1/29				3/1/03	
9. Criteria for assuring control of the site by the ESP holder				3/5					
10. Use of License Renewal GEIS for ESP	9/25	x							
11. Criteria for determining ESP duration (10-20 years)	12/5	x			12/20				

ESP Topic Higher priority topics shaded	Initial Discussion	Resolution Pending	Discussions Ongoing	Next Discussion	NEI Letter	NRC Response	Potential Snr. Mgmt Issue	ESP Schedule Impact if not Resolved by	Remarks
12. Guidance for evaluating severe accident mitigation alternatives under NEPA	8/22	x			12/20			2/1/03	
13. Guidance for ESP seismic evaluations	6/13		x	1Q03					2 <sup>nd</sup> meeting on pilot demonstration activity planned for 1Q03
14. Applicability of Federal requirements concerning environmental justice				3/5					Evaluating related PFS decision by Commission
15. Appropriate level of detail for site redress plans	9/25	x			11/26				
16. Guidance for ESP approval of emergency plans				1/29					
17. Petition to eliminate duplicative NRC review of valid existing site/facility information									Staff recommendation pending on petition PRM-52-1
18. Petition to eliminate reviews for alternate sites, sources and need for power									Staff recommendation pending on petition PRM-52-2
18a Alternative site reviews	12/5	x			12/20			3/1/03	
19. Addressing effects of potential new units at an existing site				3/5					
20. Practical use of existing site/facility information	9/25	x			11/26				
21. Understanding the interface of ESP with the COL process.				3/5					
22. Form and content of an ESP	8/22		x	1Q03				2/1/03	NEI draft under consideration by NRC